

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1. (previously presented) A communications network comprising:
two or more cell sites for communication with wireless terminals, each cell site having multiple receive antennas;
a central site having one or more controllers, the one or more controllers comprise a selection system, the selection system carries out macro-diversity selection using a cell selector and micro-diversity selection using an antenna selector; and
a switch system through which receive signals from each of the multiple receive antennas of each cell site are connected to the selection system, wherein based on analysis, at the selection system at the central site, of the receive signals from each of the multiple receive antennas of each cell site: (a) the cell selector performs the macro-diversity selection to counter macro spatial effects in the communications network, and selects one of the cell sites from the two or more cell sites for reception from a particular wireless terminal, and (b) the antenna selector performs the micro-diversity selection to counter micro spatial effects in the communications network, and selects one of the receive antennas of the multiple receive antennas of the selected cell site.
2. (previously presented) A communications network according to claim 1, wherein:
the switch system presents all receive signals from the multiple receive antennas at each cell site to the selection system at the central site.
3. (cancelled)
4. (previously presented) A communications network according to claim 1 wherein the one or more controllers include transceivers that transmit and receive RF signals according to different respective wireless LAN protocols that are used by different wireless terminals.

5. (previously presented) A communications network according to claim 1 wherein the central site is connected to the two or more cell sites via optical fibers, and each cell site comprises an optical transmitter and an optical receiver.

6.-12. (cancelled)

13. (previously presented) A communications network according to claim 1, wherein the multiple receive antennas of the at least one of the cell sites include first and second receive antennas of one of the cell sites, and the at least one of the cell sites includes a first electric-to-optical converter associated with the first receive antenna, and a second electric-to-optical converter associated with the second receive antenna, the communications network further comprising:

- an optoelectronic port having at least first and second optical receivers;
- a first optical fiber coupled between the first optical receiver and the first electric-to-optical converter to carry a receive signal of the first receive antenna; and
- a second optical fiber coupled between the second optical receiver and the second electric-to-optical converter to carry a receive signal of the second receive antenna.

14. (previously presented) A communications network according to claim 13, wherein

the antenna selector selects one of the receive antennas by selecting a signal from a set of signals which includes signals of the first and second optical receivers.

15. (previously presented) A communications network according to claim 13, further comprising:

- a transmit antenna at the at least one of the cell sites;
- an optical-to-electric converter associated with the transmit antenna; and
- an optical transmitter associated with the optoelectronic port;

wherein the optical transmitter is coupled to the optical-to-electric converter of the transmit antenna to carry a transmit signal of the transmit antenna by sharing at least part of the first optical fiber with the receive signal of the first receive antenna.

16. (previously presented) A communications network according to claim 1, wherein:

signals of the multiple receive antennas are received at the antenna selector; and

the antenna selector selects the one receive antenna of the multiple receive antennas by selecting one of the signals of the multiple receive antennas and passing the selected one of the signals of the multiple receive antennas to the cell selector.

17.-21. (cancelled)

22. (previously presented) A communications network according to claim 1, wherein:

the one or more controllers are provided in a network interface card.

23. (previously presented) A communications network according to claim 22, wherein:

the network interface card comprises a MAC processor for analyzing packets received from each cell site according to a wireless LAN protocol.

24. (previously presented) A communications network according to claim 23, wherein:

the wireless LAN protocol is IEEE 802.11.

25. (previously presented) A communications network according to claim 1, further comprising:

at least one network interface card, the at least one network interface card comprises the one or more controllers, a baseband modem for conversion of digital signals to and from quadrature form, a stage for modulation and demodulation of quadrature signals, and an input/output port for connection to a server.